

**Notice of Allowability**

Application N .

09/976,987

Examin r

Jane Rhee

Applicant(s)

CLARKE ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/13/2006.
2. ☒ The allowed claim(s) is/are 1-8, 13, 15, 16, 20, 23-25 and 28-77.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**PATRICK JOSEPH RYAN**  
SUPERVISORY PATENT EXAMINER

***Reasons for Allowance***


1. The following is an examiner's statement of reasons for allowance: The prior art discloses a gas permeable membrane that comprises a microporous polymeric film comprising a network of interconnected pores such that gases can pass through the film and a polymeric coating on the microporous film (col. 2 lines 43-50). The prior art further discloses that the polymeric coating membrane has a oxygen permeability (OTR), of at least  $775,000 \text{ ml/m}^2 \cdot \text{atm} \cdot 24\text{hrs}$  ( $50,000\text{cc}/100 \text{ inch}^2 \cdot \text{atm} \cdot 24\text{hrs}.$ ) (col. 2 line 52) and has a  $\text{CO}_2/\text{O}_2$  permeability ratio (R ) of at least 1.5 (col. 2 line 54). However, the prior art fails to teach or suggest that the pores in the microporous film have an average pore size of less than 0.24 micron and greater than zero. Applicant explains in specification page 4 lines 17-25 that the size and distribution of the pores in the microporous film are important factors. If the pores are too small, the coating polymer tends to form a continuous layer which is either too thin to be durable under routine handling, or too thick to have an acceptable OTR(oxygen transmission rate). If the pores are too large, the coating polymer may be unable to bridge over them, so that the coating plays little or no part in determining the permeability characteristics of the membrane. This may happen even if the average pore size is relatively low, if the pores have a wide range of sizes; for example the coating polymer may effectively block many of the pores, but still fail to block the larger pores whose permeability then dominates the permeability of the membrane as a whole. The reference, alone or in combination fail to recognize the effect or criticality of the pore size and are therefore not seen to teach or fairly suggest to invent as claimed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Jane Rhee", with a stylized, cursive script.

Jane Rhee  
May 25, 2006